

REMARKS/ARGUMENT

I. General Remarks

Please consider the application in view of the following remarks. Applicants thank the Examiner for his careful consideration of this application and the references that Applicants have submitted.

II. Disposition of Claims

At the issuance of the Final Office Action, claims 1-22, 24-34, 36-59, 88 and 89 were pending in this application. Of these, claim 33 has been withdrawn from consideration. In the Final Office Action, claims 1-22, 24-32, 34, 36-59, 88 and 89 were rejected. By this paper, Applicants have amended claims 1, 7, 8, 11, 14, 17, 22, 24-28, 30, 32, 33, 36, 40, 42, 44-47, 50-59, and 88 have been amended and cancelled claims 2-5, 48 and 49. Applicants respectfully submit that these amendments do not add any new matter. Further, Applicants reserve the right to subsequently take up prosecution on the claims as originally filed in this or appropriate continuation, continuation-in-part and/or divisional applications. Applicants respectfully request reconsideration in light of the remarks and amendments contained herein.

III. Remarks Regarding Obviousness-Type Double Patenting.

The Examiner had previously rejected claims 1-3, 5, 12-22, 24-29, 40, 41, 43-48, 50-59, 88 and 89 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 52, 53, 55-64, 66-69, 72-75, 77-81, 85, 88 and 90 of copending Application 10/350,533.

In response to the prior office action, Applicants respectfully submitted an appropriate terminal disclaimer in compliance with 37 C.F.R. § 1.321 disclaiming the appropriate term. Applicants thank the Examiner for the withdrawal of the obviousness-type double patenting rejection.

IV. Rejection of Claims Under 35 U.S.C. § 102(b) - Jorda et al.

Claims 1-3, 5-7, 11, 13, 14, 17, 18, 24, 26-30, 41, 43, 44, 46-48, 50-52, 54-56, 58, 88 and 89 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 3,145,773 to Jorda *et al.* ("*Jorda*"). With respect to these rejections, the Final Office Action states:

Jorda teaches a method of completing formations traversed by an oil, water or gas producing well (Column 1 Lines 10-18) comprising injecting a slurry of oil or water and expandable elastic

particles covered with an impermeable film or layer (Column 3
Lines 1-58).

Since Jorda teaches the same composition as claimed, the density, compressibility and pressure and temperature resistance of the particles and the variability of the density of the fluid of the Jorda composition would inherently be the same as claimed.

(Final Office Action at page 4). Applicants respectfully disagree with these rejections.

To form a basis for a § 102(b) rejection, a prior art reference must disclose each and every element as set forth in the claim. *See* MANUEL OF PATENT EXAMINING PROCEDURE (MPEP) § 2131 (2005). “The identical invention must be shown in as complete detail as is contained in the claim.” *Id.* Applicants respectfully submit that *Jorda* does not disclose each and every element of claims 1, 6, 7, 11, 13, 14, 17, 18, 24, 26-30, 41, 43, 44, 46-47, 50-52, 54-56, 58, 88 and 89, as required to anticipate these claims under 35 U.S.C. § 102(b). *See* MPEP § 2131.

With regard to independent claims 1, 44 and 47, *Jorda* fails to disclose a “drilling fluid.” By way of example, *Jorda* does not disclose “circulating the variable density drilling fluid into the borehole in the subterranean formation as part of a drilling operation,” as recited by independent claim 1. By way of further example, *Jorda* does not disclose “drilling the borehole in the subterranean formation using the variable density drilling fluid,” as recited by independent claim 44. Rather, *Jorda* is directed to a “method of sealing one or more selected formations . . . by a well in which a well casing has been *installed and cemented in the well*.” (See col. 1, ll. 10-13). One of ordinary skill in the art would appreciate that drilling fluids are not utilized when a well casing has been installed and cemented. As such, *Jorda* does not disclose each and every element as set forth in independent claims 1, 44, and 47. Thus, *Jorda* cannot be used to anticipate Applicants’ claims.

The remaining claims rejected as anticipated by *Jorda* under 35 U.S.C. § 102(b) depend either directly or indirectly from independent claims 1, 44, and 47. All these dependent claims include all the limitations of their corresponding independent claims 1, 44, and 47. Accordingly, Applicants respectfully request withdrawal of this rejection with respect to claims 1, 6, 7, 11, 13, 14, 17, 18, 24, 26-30, 41, 43, 44, 46-47, 50-52, 54-56, 58, 88 and 89.

V. Rejection of Claims Under 35 U.S.C. § 102(e)

A. Rejection of Claims Under 35 U.S.C. § 102(e) - Reddy et al.

Claims 1-3, 5-7, 11-22, 24-29, 40, 41, 43-48, 51-59, 88 and 89 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication 2004/0144537 to Reddy et al. ("Reddy"). With respect to these rejections, the Final Office Action states:

Reddy teaches a method of using—specifically cementing (§0006)—a fluid in a subterranean formation comprising introducing said fluid into the subterranean formation through a well bore (§0001)—including pumping (§0017)—wherein the fluid comprises a base fluid and a portion of elastic particles (Abstract, §0006), wherein the base fluid is present at from about 30% to about 120% by weight of the cement (§0017) and may be an aqueous or organic liquid and if organic is capable of emulsifying a water solution of salts (§0008) and the particles are present in the range of from about 1% to about 200% by weight of the cement (§0007), can be pre-expanded up to about 8 times their original diameter, which calculates to up to 268 times their original volume by $4/3\pi r^3$ before being added to composition with an internal fluid—including the elected internal fluid, air (§0007 and 0008)—are comprised of a copolymer of styrene and divinylbenzene or styrene and acrylonitrile or a terpolymer of styrene and vinylidene chloride and acrylonitrile (§0006)—including EXPANCEL particles as exemplified by applicant (§0008).

Since Reddy teaches the same composition as claimed, the density, compressibility and pressure and temperature resistance of the particles and the variability of the density of the fluid of the Reddy composition would inherently be the same as claimed.

The applied reference has a common assignee and at least one common inventor with the instant application. Based upon the earlier effective US filing date of the reference, it constitutes prior art under 35 USC 102(e). This rejection under 35 USC 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.1131.

(Final Office Action at pages 5-6).

In order to form a basis for a § 102(e) rejection, an earlier-filed patent must be "by another." See 35 U.S.C. § 102(e). The declaration of B. Raghava Reddy under 37 C.F.R. §

1.132 showing that the relevant disclosure in *Reddy* is Applicant's own work, and thus the invention disclosed therein is not "by another." See MPEP § 716.05 (2005) (declaration from the applicant regarding the subject matter disclosed in a patent is sufficient to establish inventorship) was submitted with the Response to the Non-Final Office Action mailed on July 23, 2007. Accordingly, Applicants respectfully submit that the 35 U.S.C. § 102(e) rejection of claims 1, 6, 7, 11-22, 24-29, 40, 41, 43-47, 51-59, 88 and 89 based on *Reddy* has been overcome.

Furthermore, Applicants respectfully submit that *Reddy* does not disclose each and every element of claims 1, 6, 7, 11-22, 24-29, 40, 41, 43-47, 51-59, 88 and 89, as required to anticipate these claims under 35 U.S.C. § 102(e). See MPEP § 2131. With regard to independent claims 1, 44 and 47, *Reddy* fails to disclose a "drilling fluid." By way of example, *Reddy* does not disclose "circulating the variable density drilling fluid into the borehole in the subterranean formation as part of a drilling operation," as recited by independent claim 1. By way of further example, *Reddy* does not disclose "drilling the borehole in the subterranean formation using the variable density drilling fluid," as recited by independent claim 44. Rather, *Reddy* is directed "to cement compositions comprising flexible, compressible beads, and processes for making the compositions." (See ¶ [0001]). As such, *Reddy* does not disclose each and every element as set forth in independent claims 1, 44, and 47. Thus, *Reddy* cannot be used to anticipate Applicants' claims.

The remaining claims rejected as anticipated by *Reddy* under 35 U.S.C. § 102(e) depend either directly or indirectly from independent claims 1, 44, and 47. All these dependent claims include all the limitations of their corresponding independent claims 1, 44, and 47. Accordingly, Applicants respectfully request withdrawal of this rejection with respect to claims 1, 6, 7, 11-22, 24-29, 40, 41, 43-47, 51-59, 88 and 89.

B. Rejection of Claims Under 35 U.S.C. § 102(e) - Ravi et al.

Claims 1-7, 11-22, 32, 34, 36-38, 40, 41, 88 and 89 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication 2004/0171499 to Ravi et al. ("*Ravi*"). With respect to these rejections, the Final Office Action states:

Ravi teaches a method of using—including in cementing and drilling (¶0009)—a fluid in a subterranean formation comprising introducing said fluid into the subterranean formation (¶0002) through a well bore (Abstract)—including pumping (¶0003)—wherein the fluid comprises a base fluid and a portion of elastic particles (¶0011), wherein the base fluid is present at from

about 25% to about 150% by weight of the cement and may be an aqueous or organic liquid and if organic is capable of emulsifying a water solution of salts—including mineral oils, synthetic oils and esters as claimed (§0017) and the particles are present in the range of from about 1% to about 200% by weight of the cement, have a specific gravity of from about 0.3 to about 0.99, a compressibility of about 1.5×10^{-3} psi⁻¹ to about 1.5×10^{-9} psi⁻¹, are substantially impermeable to the fluid typically encountered during cementing operations (§0018), can be pre-expanded up to about 40 times their original volume before being added to composition with an internal fluid—including the elected internal fluid, air (§0019)—are comprised of a copolymer of styrene and divinylbenzene or styrene and acrylonitrile or a terpolymer of styrene and vinylidene chloride and acrylonitrile (§0020) and can withstand pressures in excess of 21,000 psi without crushing (§0023)—including EXPANCEL particles as exemplified by applicant (§0019-0021)—coated with hydrophobic silane material (Claims 1 and 16-18).

Since Ravi teaches the same composition as claimed, the variability of the density and the temperature resistance of the particles of the Ravi composition would inherently be the same as claimed.

The applied reference has a common assignee and at least one common inventor with the instant application. Based upon the earlier effective US filing date of the reference, it constitutes prior art under 35 USC 102(e). This rejection under 35 USC 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

(Final Office Action at pages 6-7).

The Examiner has indicated that this rejection with regard to claims 1, 2, 4-7, 11-22, 32, 34, 36-38, 40, 41, 43-47, 50-59 and 88-89 could be overcome with a declaration pursuant to 37 C.F.R. § 1.132 showing that the relevant disclosure is not “by another.”

Applicants’ declarations under 37 C.F.R. § 1.132 showing that the relevant disclosure is Applicants’ own work, and thus the invention disclosed is not “by another” were submitted with the Response to the Non-Final Office Action mailed on July 23, 2007. *See* MPEP § 716.10 (2005) Accordingly, Applicants respectfully submit that the 35 U.S.C. § 102(e)

rejection of claims 1, 6, 7, 11-22, 32, 34, 36-38, 40, 41, 43-47, 50-59 and 88-89 based on *Ravi* has been overcome, and respectfully request the withdrawal of these rejections.

Furthermore, Applicants respectfully submit that *Ravi* does not disclose each and every element of claims 1, 6, 7, 11-22, 32, 34, 36-38, 40, 41, 43-47, 50-59 and 88-89, as required to anticipate these claims under 35 U.S.C. § 102(e). See MPEP § 2131. With regard to independent claims 1, 44 and 47, *Ravi* fails to disclose a “drilling fluid.” By way of example, *Ravi* does not disclose “circulating the variable density drilling fluid into the borehole in the subterranean formation as part of a drilling operation,” as recited by independent claim 1. By way of further example, *Ravi* does not disclose “drilling the borehole in the subterranean formation using the variable density drilling fluid,” as recited by independent claim 44. Rather, *Ravi* is directed “cement compositions comprising elastic particles and having improved mechanical.” (See ¶ [0002]). As such, *Ravi* does not disclose each and every element as set forth in independent claims 1, 44, and 47. Thus, *Ravi* cannot be used to anticipate Applicants’ claims.

The remaining claims rejected as anticipated by *Ravi* under 35 U.S.C. § 102(e) depend either directly or indirectly from independent claims 1, 44, and 47. All these dependent claims include all the limitations of their corresponding independent claims 1, 44, and 47. Accordingly, Applicants respectfully request withdrawal of this rejection with respect to claims 1, 6, 7, 11-22, 32, 34, 36-38, 40, 41, 43-47, 50-59 and 88-89.

VI. Rejection of Claims Under 35 U.S.C. § 103(a)

A. Rejection of Claims Under 35 U.S.C. § 103(a) - Johnson et al. in View of Jorda et al.

Claims 8-10, 34, 36-39, and 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 3,256,936 to Johnson et al. (“*Johnson*”) in view of *Jorda* as applied to claims 1-3, 5-7, 11, 13, 14, 17, 18, 24, 26-30, 41, 43, 44, 46-48, 50-52, 54-56, 58, and 88-89. With respect to these rejections, the Final Office Action states:

Johnson teaches a method of drilling and cementing a wellbore comprising drilling a wellbore wherein the wellhead is positioned on the ocean floor (Column 1 Lines 8-13 and 58-61) and the assembly comprises pipe strings extending downward that are identical to pipe strings extending upward (Figure 2 and Column 2 Lines 6-9) and a riser to inject mud (Figure 3 Reference No. 53 and Column 4 Lines 15-20).

Johnson does not disclose expressly injecting a fluid of the composition claimed.

Jorda teaches a method of completing formations traversed by an oil, water or gas producing well comprising injecting a slurry of oil or water and expandable elastic particles covered with an impermeable film or layer as detailed above.

Since Jorda teaches the same composition as claimed, the density, compressibility and pressure and temperature resistance of the particles and the variability of the density of the fluid of the Jorda composition would inherently be the same as claimed.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the fluid composition of Jorda in the method of Johnson. The motivation to do so would have been to prevent contamination of the oil by water from an adjacent formation (Jorda Column 1 Lines 19-28).

(Final Office Action at pages 7-8). Applicants respectfully disagree.

In order for a combination of references to form the basis for a rejection under § 103(a), the combination of references must teach or suggest all of the elements of the claim. MPEP § 2143. As discussed above, *Jorda* does not teach all of the elements of claim 1, from which claims 8-10, 34, 36-39, and 42 depend, because *Jorda* does not teach a method utilizing a “drilling fluid” as recited in the claims. Applicants respectfully submit that combining *Johnson* with *Jorda* will not remedy this deficiency. Accordingly, Applicants respectfully submit that a combination of *Johnson* and *Jorda* does not teach all of the limitations of claim 8-10, 34, 36-39, and 42, which, as dependent claims, necessarily include all of the limitations of independent claim 1. See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, these dependent claims are allowable over the proposed combination of references.

B. Rejection of Claims Under 35 U.S.C. § 103(a) - *Johnson et al.* in View of *Reddy et al.*

Claims 8-10, 34, 36-39 and 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Johnson* in view of *Reddy* as applied to claims 1-3, 5-7, 11-22, 24-30, 40, 41, 43-48, 51-59, 88, and 89. With regard to these rejections, the Final Office Action states:

Johnson teaches a method of drilling and cementing a wellbore comprising drilling a wellbore wherein the wellhead is positioned on the ocean floor and the assembly comprises pipe strings extending downward that are identical to pipe strings extending upward and a riser to inject mud as detailed above.

Johnson does not disclose expressly injecting a fluid of the composition claimed.

Reddy teaches a method of using—specifically cementing—a fluid in a subterranean formation comprising introducing said fluid into the subterranean formation through a well bore—including pumping—wherein the fluid comprises a base fluid and a portion of elastic particles, wherein the base fluid is present at from about 30% to about 120% by weight of the cement and may be an aqueous or organic liquid and if organic is capable of emulsifying a water solution of salts and the particles are present in the range of from about 1% to about 200% by weight of the cement, can be pre-expanded up to about 8 times their original diameter, which calculates to up to 268 times their original volume by $4/3\pi r^3$ before being added to composition with an internal fluid—including the elected internal fluid, air—are comprised of a copolymer of styrene and divinylbenzene or styrene and acrylonitrile or a terpolymer of styrene and vinylidene chloride and acrylonitrile—including EXPANCEL particles as exemplified by applicant as detailed above.

Since Reddy teaches the same composition as claimed, the density, compressibility and pressure and temperature resistance of the particles and the variability of the density of the fluid of the Reddy composition would inherently be the same as claimed.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the fluid composition of Reddy in the method of Johnson. The motivation to do so would have been to provide compositions that can withstand the cyclical stresses that occur during the life of the well (Reddy ¶0006).

The applied reference, Reddy, has at least one common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 USC 102(e). This rejection under 35 USC 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference as derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 USC 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be

overcome by showing that the reference is disqualified under 35 USC 103(c) as prior art in a rejection under 35 USC 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

(Final Office Action at pages 8-10).

Applicants respectfully disagree with this rejection because *Reddy* is not available as prior art under 35 U.S.C. § 103(a). In Applicants' Response to the Office Action mailed October 20, 2006, Applicants made a statement of common ownership. A statement of common ownership is sufficient to remove prior art from the purview of 35 U.S.C. § 103(a) if that prior art would have been prior art only under 35 U.S.C. § 102(e). MPEP § 706.02(I). As Applicants have previously made the statement of common ownership, *Reddy* is no longer available as prior art under 103(a) in accordance with 35 U.S.C. § 103(c). *Johnson* alone has not been shown to obviate independent claims 1, 44 and 47. Therefore, Applicants respectfully request withdrawal of this rejection. Accordingly, Applicants respectfully submit that the 35 U.S.C. § 103(a) rejection of claims 8-10, 34, 36-39 and 42 based on *Johnson* in view of *Reddy* should be withdrawn.

VII. Request for Rejoinder of Withdrawn Claim 33

Withdrawn claim 33 depends from independent claim 1. Accordingly, once the Examiner determines that independent claim 1 is allowable, Applicants request rejoinder of claim 33, including examination of the formerly nonelected species on the merits. In addition, because independent claim 1 is in condition for allowance for the reasons stated above, Applicants respectfully submit that claim 33 is also in condition for allowance. Therefore, Applicants request that the Examiner provide an indication of allowance for claim 33.

VIII. No Waiver

All of Applicants' arguments are without prejudice or disclaimer. Additionally, Applicants reserve the right to discuss additional distinctions from cited references in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner's additional statements.

SUMMARY

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants hereby petition under the provisions of 37 C.F.R. § 1.136(a) to extend the time for reply to the Final Office Action mailed on August 31, 2007 for 3 months from November 31, 2007 to February 29, 2008. The Applicants have authorized the Commissioner to debit Baker Botts L.L.P.'s Deposit Account No. 02-0383, Order Number 063718.0161, in the amount of \$1050.00 for the fee for the three-month Extension of Time to file this Response. Further, the Applicants have authorized the Commissioner to debit Baker Botts L.L.P.'s Deposit Account No. 02-0383, Order Number 063718.0161, in the amount of \$810.00 for the RCE fee under 37 C.F.R. § 1.117(e). Should the Commissioner deem that any fees are due, including any fees for any extensions of time, Applicants respectfully request that the Commissioner accept this as a Petition therefore, and directs that any fees be debited from Baker Botts L.L.P., Deposit Account No. 02-0383, Order Number 063718.0161.

Respectfully submitted,



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